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09/663,665	09/15/2000	Gregory L. Slaughter	5181-47300	2188

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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,665

Applicant(s)

SLAUGHTER ET AL.

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 53 are pending in the current application.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 2, 6 – 9, 22, 23, 27, 30, 31 and 43 – 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,569,207 to Sundaresan [cited in previous office action] in view of U.S. Patent No. 5,991,823 to Cavanaugh et al. [hereinafter Cavanaugh].**

5. As to claim 1, Sundaresan teaches the invention substantially as claim including a method for the exchange of objects in a distributed computing environment [distributed computer system using the Internet 100 to connect client systems 102 executing Web browsers 104 to server systems 106 executing Web daemons 108; col. 4, lines 16 – 29], comprising:

user accessing a client device [BeanMaker 112 also accepts input from the user in the form of optional customization specifications that define what class names to generate; col. 6, lines 20 – 25]; and

generating a computer programming language object [Java objects 116, Fig. 3; col. 9, lines 5 – 16] from a data representation language representation [XML document 114; col. 9, lines 23 – 38] of the object [col. 9, lines 7 – 16], wherein the object is an instance of a class in the computer programming language [create the Java Beans objects 116, which are instances 302 of the default Java Beans implementation class specifications...202, or instances 304 of classes which are hand-implemented by the application programmer to the interface in the reusable Java Beans interface class specification...200, by reading an XML specification 114; col. 9, lines 23 – 39], and wherein the object is accessible for use during the accessing the client device [application programmer would use the instances 300 of the Java Beans handler class specifications; col. 9, lines 23 – 38].

6. Although Sundaresan teaches removing the computer programming language object [remove method; col. 8, lines 55 – 65], Sundaresan does not teach deleting the computer programming language object in response to the terminating access.

However, Cavanaugh a distributed object system with an authentication protocol [col. 10, line 60 – col. 11, line 10] and deleting a computer programming language object [if the developer no longer has any use for this object it will be removed; col. 15, lines 9 – 23] in response to the terminating access [Shutdown function is used to shutdown a particular implementation definition by removing all servant objects; col. 13,

lines 28 – 51] so that the deleted object is not accessible by subsequent users of the client device [col. 15, lines 9 – 25].

7. It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of deleting the computer programming language object in response to the terminating access as taught by Cavanaugh to the invention of Sundaresan because this would prevent unauthorized access to the object and deallocates the storage for the object after the user has finished accessing the object.

8. As to claim 2, Sundaresan as modified teaches receiving a message in the data representation language from a service device in the distributed computing environment prior to the generating a computer programming language object [XML specifications are embedded in script files, HTML pages, servlet and Java server pages, there are several ways to use XML specifications with HTML in the browser and server side; col. 12, lines 20 – 49 of Sundaresan], wherein the message includes the data representation language representation of the object [XML specifications of Sundaresan].

9. As to claim 6, Sundaresan as modified teaches generating a computer programming language object [Java objects 116, Fig. 3; col. 9, lines 5 – 16 of Sundaresan] from a data representation language representation [XML document 114; col. 9, lines 23 – 38 of Sundaresan] of the object [col. 9, lines 7 – 16 of Sundaresan] is performed by a virtual machine executing within the client device [Either or both of the

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Web browser 104 and Web daemon 108 may include a Java Virtual Machine (JVM) 110 that executes Java objects, applets, scripts; col. 4, lines 30 – 39 of Sundaresan].

10. As to claim 7, Sundaresan as modified teaches generating a plurality of computer programming language objects from data representation language representations of the objects [create the Java Beans objects 116, which are instances 302 of the default Java Beans implementation class specifications...202, or instances 304 of classes which are hand-implemented by the application programmer to the interface in the reusable Java Beans interface class specification...200, by reading an XML specification 114; col. 9, lines 23 – 39 of Sundaresan]; and

deleting the plurality of computer programming language objects in response to the terminating access [Shutdown function is used to shutdown a particular implementation definition by removing all servant objects; col. 13, lines 28 – 51; col. 15, lines 9 – 25 of Cavanaugh].

11. As to claim 8, Sundaresan as modified teaches the data representation language is extensible Markup Language (XML) [XML document 114; col. 9, lines 23 – 38 of Sundaresan].

12. As to claim 9, Sundaresan as modified teaches the computer programming language is the Java programming language [Java objects 116, Fig. 3; col. 9, lines 5 – 16; col. 4, lines 30 – 36 of Sundaresan].

13. As to claims 22 and 23, these are apparatus claims that correspond to method claims 1 and 2; note the rejections to claims 1 and 2 above, which also meet these apparatus claims.

14. As to claim 27, this is rejected for the same reason as claim 7 above.

15. As to claims 30 and 31, they are rejected for the same reasons as claims 8 and 9 above.

16. As to claims 43 and 44, these are product claims that correspond to method claims 1 and 2; note the rejections to claims 1 and 2 above, which also meet this product claim.

17. As to claim 45, this is rejected for the same reason as claim 7 above.

18. As to claim 46, this is rejected for the same reasons as claims 8 and 9 above.

19. **Claims 3 – 5, 10 – 21, 24 – 26, 28, 29, 32 – 42 and 47 – 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan and Cavanaugh in view of U.S. Patent No. 5,774,551 to Wu [cited in previous office action].**

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20. As to claim 3, Sundaresan as modified does not teach accessing a client device by coupling an identification device to the client and terminating access by decoupling the identification device from the client device.

However, Wu teaches accessing a client device comprises the user coupling an identification device to the client device [authentication services 109 may include password or encrypted key based mechanisms such as...hardware/firmware based mechanisms, such as smart-card; col. 15, lines 54 – 65], wherein the identification device provides identification information of the user to the client device [the encrypted authentication tokens may be stored in a smart card, or other non-public storage facility; col. 10, lines 37 – 65], and wherein the termination the accessing comprises decoupling the identification device from the client device [system entry service 107 initiates a disconnect process, and handles the necessary physical disconnection and protocols for disconnecting from the system 100, Fig. 5; col. 19, line 57 – col. 20, line 9].

21. It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of accessing a client device by coupling an identification device to the client and terminating access by decoupling the identification device from the client device as taught by Wu to the invention of Sundaresan as modified because this allows any system entry service to be used transparently with any combination of account, password, session, or authentication services, including multiple instances of a given type of account management service and provides supports for unified login and logout with multiple authentication services [col. 6, lines 15 – 26 of Wu].

22. As to claim 4, Sundaresan as modified teaches the identification device is a smart card [the encrypted authentication tokens may be stored in a smart card, or other non-public storage facility; col. 10, lines 37 – 65 of Wu].

23. As to claim 5, Sundaresan as modified teaches the accessing a client device comprises the user logging on to the client device [Unified login is accomplished through a authentication token mapping process; col. 3, lines 55 – 67 of Wu] by providing user identification to the client device [the encrypted authentication tokens may be stored in a smart card, or other non-public storage facility; col. 10, lines 37 – 65 of Wu], and wherein the terminating the accessing comprises the user logging off the client device [user logouts 501 of the system entry service 107, either explicitly by invoking a specific method of the system entry service 107, or implicitly by shutting off the workstation or terminal the user is working on; col. 19, line 57 – col. 20, line 9 of Wu].

24. As to claim 10, Sundaresan as modified teaches a method-for the secure exchange of objects in a distributed computing environment [distributed computer system using the Internet 100 to connect client systems 102 executing Web browsers 104 to server systems 106 executing Web daemons 108; col. 4, lines 16 – 29 of Sundaresan], comprising:

a user accessing a client device [col. 6, lines 20 – 25 of Sundaresan];

the client device receiving a message in a data representation language from a service device in the distributed computing environment [col. 12, lines 20 – 49 of Sundaresan], wherein the message includes a data representation language representation of an object [XML specifications of Sundaresan];

if the determining, determines the user has access rights to the computer programming language object [If the authentication process is successful by the selected authentication services 109, the system entry service 107 is granted access to the computer 101; col. 19, lines 15 – 45 of Wu], generating the object [Java objects 116, Fig. 3; col. 9, lines 5 – 16 of Sundaresan] from the data representation language representation [XML document 114; col. 9, lines 23 – 38 of Sundaresan] of the object [col. 9, lines 7 – 16 of Sundaresan], wherein the object is an instance of a class in the computer programming language [col. 9, lines 23 – 39 of Sundaresan], and wherein the object is accessible for use during the accessing the client device [col. 9, lines 23 – 38 of Sundaresan]; and

if the determining determines the user does not have access rights [authentication failed] to the computer programming language object, not generating the object [indicates to the system entry service 107 that authentication failed, and hence the user is not authorized to access the computer; col. 10, lines 15 – 36 of Wu].

25. As to claim 11, Sundaresan as modified teaches the message further includes access information for the computer programming language object [Java class specifications 116; col. 9, lines 5 – 16 of Sundaresan], wherein the determining if the

user has access rights to the computer programming language object uses the access information [authentication service 109 verifies 407 the user, now using the primary authentication token, and stores 413 this primary authentication token to the global token; col. 19, lines 1 – 15 of Wu].

26. As to claim 12, Sundaresan as modified teaches deleting the computer programming language object [col. 15, lines 9 – 23 of Cavanaugh] in response to the user terminating access to the client device [col. 13, lines 28 – 51 of Cavanaugh], wherein the deleted object is not accessible for use by subsequent users of the client device [col. 15, lines 9 – 25 of Cavanaugh].

27. As to claims 13 – 15, they are rejected for the same reasons as claims 3 – 5 above.

28. As to claim 16, Sundaresan as modified teaches the user terminating the accessing the client device [unified logout process; col. 19, line 57 – col. 20, line 8 of Wu] and storing the computer programming language object in response to the terminating access [data and/or instructions are embodied in and/or readable from a device, carrier or media, such as memory, data storage devices; col. 4, lines 37 – 45 of Sundaresan].

29. As to claim 17, Sundaresan as modified teaches the user accessing the client device subsequent to the storing the object and accessing the stored object during the accessing the client device [col. 9, lines 23 – 38 of Sundaresan].

30. As to claim 18, Sundaresan as modified teaches storing access rights information of the user with the object [the encrypted authentication tokens may be stored in a smart card, or other non-public storage facility; col. 10, lines 37 – 65 of Wu], wherein the accessing the stored object comprises verifying the access rights of the user with the stored access rights information [authentication service 109 verifies 407 the user, now using the primary authentication token, and stores 413 this primary authentication token to the global token; col. 19, lines 1 – 15 of Wu].

31. As to claims 19 – 21, they are rejected for the same reasons as claims 6, 8 and 9 above.

32. As to claims 24 and 25, these are apparatus claims that correspond to method claims 3 and 4; note the rejections to claims 3 and 4 above, which also meet these apparatus claims.

33. As to claim 26, Sundaresan as modified teaches the device is further configured to accept user input [col. 6, lines 20 – 25 of Sundaresan] to initiate the terminating the

user access [unified logout process ensures that the user's authentication token and credentials are removed; col. 19, line 57 – col. 20, line 8 of Wu].

34. As to claim 28, Sundaresan as modified teaches a processor [clients 102 that are personal computers or workstations, and servers 106 that are personal computers, workstations, minicomputers, or mainframes; col. 4, lines 16 – 29 of Sundaresan], a memory [col. 4, lines 37 – 45 of Sundaresan], and a virtual machine executed by the processor from the memory, wherein the generating is performed by the virtual machine [col. 4, lines 30 – 39 of Sundaresan].

35. As to claim 29, Sundaresan as modified teaches the accepting, the terminating, and the deleting are performed by the virtual machine [col. 4, lines 30 – 39 of Sundaresan], wherein the object is stored in the memory subsequent to the generating [col. 9, lines 7 – 16 of Sundaresan], and wherein, in the deleting, the object is deleted from the memory [token and credentials are removed from any publicly accessible resource; col. 19, line 57 – col. 20, line 8 of Wu].

36. As to claims 32 – 36, these are system claims that correspond to method claims 10 – 14; note the rejections to claims 10 – 14 above, which also meet these system claims.

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37. As to claim 37, Sundaresan as modified teaches a memory [col. 4, lines 37 – 45 of Sundaresan], accept user input to terminate the access of the client device [col. 6, lines 20 – 25 of Sundaresan], and store the computer programming language object to the memory in response to the terminating access [col. 4, lines 37 – 45 of Sundaresan].

38. As to claims 38 – 40, they are rejected for the same reasons as claims 17, 18 and 28 above.

39. As to claims 41 and 42, they are rejected for the same reasons as claims 8 and 9 above.

40. As to claims 47 – 50, these are product claims that correspond to method claims 10 – 13; note the rejections to claims 10 – 13 above, which also meet these product claims.

41. As to claims 51 and 52, these are rejected for the same reasons as claims 16 – 18 above.

42. As to claim 53, this is rejected for the same reasons as claims 8 and 9 above.

Conclusion

43. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,412,070 to Van Dyke et al. teaches extensible security system and method for controlling access to objects in a computing environment.

"Managing Security Policies in a Distributed Environment Using extensible Markup Language (XML)" teaches Java and Role-Based Access Control (RBAC) policies.


44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2126

lbz
September 30, 2004


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